TWO NEW SPECIES FROM JAUNECHE, ECUADOR: INGA JAUNECHENSIS (LEGUMINOSAE) AND ANNONA HYSTRICOIDES (ANNONACEAE)

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Three undescribed species have been discovered during field work associated with preparation of the Flora of Jauneche, Los Rios, Ecuador (C. Dodson, A. Gentry, and F. Valverde, in press). One of these, <u>Aspidosperma jaunechense</u> A. Gentry, has already been described. The other two are described here.

It is interesting that only three undescribed species have been discovered at Jauneche, the last patch of coastal moist forest in western Ecuador. This compares to the almost 100 new species described from nearby Rio Palenque in a wet forest habitat. In general, the moist forest flora of coastal Ecuador is much less endemic than the wet forest one. Several previously described local endemics do occur at Jauneche, however, including some species described from Ruiz and Pavon collections labelled "Peru" which have previously been thought to be Peruvian endemics.

ANNONA HYSTRICOIDES A. Gentry, sp. nov.

Frutex scandens. Folia oblongo-elliptica, ad apicem basimque rotundata, infra glauca venis ferrugineis, molliter puberula. Flos ignotus. Fructus oblongo-ellipsoideus, echinatus, spinis vulgo 4-6 mm longis.

Canopy liana, the branchlets terete, reddish puberulous when young, glabrescent. Leaves oblong-elliptic, rounded at base and apex, 2-11 cm long, 1.5-6 cm wide, drying dark olive above, glaucous gray below with contrastingly rufescent main veins, the surface below puberulous with soft flexuous hyaline trichomes, the main veins puberulous with stiffer reddish trichomes, sparsely puberulous with flexuous trichomes above, with 6-8 lateral nerves on each side running out indistinctly toward leaf margin; petiole 2-8 mm long, reddish puberulous. Inflorescence (only 1 seen) with

1. Supported by NSF Grant INT-7906840.

a terminal fruit. Flowers not known. Fruit oblong-ellipsoid, 5.5 cm long, 2.5 cm wide, echinate spiny with spines mostly 4-6 mm long, the spine tips mostly slightly recurved, rufous puberulous.

Type: ECUADOR: Los Rios: Jauneche Forest, km. 70 Quevedo-Palenque via Mocachi, Canton Vinces, alt. ca. 100 m, 26 Mar 1980, <u>Dodson & Gentry</u> <u>9918</u> (holotype, MO; isotypes ECU, RPSC, SEL, US).

This species is very unusual in the genus on account of its scandent habit. Only six other scandent species of Annona are known, four of them treated by Fries (Act. Hort. Berg. 10: 1-341. 1931) and two described subsequently. All are poorly collected; Fries (1931; Act. Hort. Berg. 12: 214. 1934) had seen a total of only 13 collections to represent five of them and the fruits of only two of the climbing species have been described. Although I have seen material of only two of the scandent Annona species plus photographs of two others, all except A. scandens Diels seem well differentiated from A. hystricoides in being described as having acuminate generally narrower leaves. Four of the scandent Annona species occur in lowland Guiana or lower Amazonian Brazil, while A. volubilis Lundell is from Guatemala and A. scandens from Amazonian Peru. Annona scandens, probably the closest relative of A. hystricoides, differs most strikingly in having a non-echinate fruit very different from the spiny porcupine-like fruit of A. hystricoides. More or less topotypic material of A. scandens at MO (Gentry et al. 25656 from the Huallaga Valley of Peru's San Martin Department) has a much finer pubescence on the leaf veins and undersurface than in A. hystricoides.

INGA JAUNECHENSIS A. Gentry, sp. nov.

Arbor parva, ramulis hispidis; stipulae amplae foliaceae persistentes. Folia pro parte maxima 6-foliolata, rachidibus non alatis, petiolis plerumque alatis, foliolis ellipticis, subbullatis, infra pubescentibus. Inflorescentia congesta, capitato-spicata. Flores sessiles, calyce dentato, 14-15 mm longo, corolla ca. 2 cm longa. Fructus complanatus, oblongus, sparsim puberulus.

Small tree to 8 m tall, the branchlets hispid with reddish trichomes often ca. 2 mm long, the stipules foliaceous, persistent, ovate, acuminate, $1.5-3 \times 0.5-2$ cm.

Leaves mostly 6-foliolate, the rachis unwinged, rufous hirsute, the petiole 2-7 cm long, usually conspicuously winged, sometimes winged and unwinged on the same plant, the leaflets large, elliptic, obtuse to abruptly acuminate at apex, often more or less apiculate, rounded at base, the terminal pair 23-38 x 11-18 cm, the basal leaflets 12-17 x 6-8 cm, pubescent throughout below with long suberect trichomes, glabrescent above except along main veins, subbullate with the secondary and usually the tertiary venation impressed above and raised below. Inflorescence a congested capitate spike, the pilose peduncle 5-7 cm long, the floriferous portion 2-2.5 cm long. Flowers sessile, the calyx tubular-campanulate, 14-15 mm long, 4-5 mm wide, bluntly dentate with teeth 1-2 mm long, tending to split spathaceously, essentially glabrous except for a few scattered appressed trichomes, the corolla ca. 2 cm long, appressed pilose, the staminal tube exserted. Fruit flat, curved, oblong, 8-11 cm long, 3-3.4 cm wide, the margin very slightly thicker, minutely and sparsely appressed puberulous, subtended by remnants of spathaceously split calyx.

Type: ECUADOR: Los Rios: Jauneche Forest, Jauneche, km. 70, Quevedo-Palenque via Mocache, Canton Vinces, 100 m alt.; tree to 6 m, flowers white, 24 Mar 1980, <u>Dodson &</u> Gentry 9857 (holotype, MO; isotypes ECU, RPSC, SEL).

Additional collections examined: (all from type locality): 4 Feb 1979, <u>Dodson et al. 7461</u> (MO, RPSC, SEL). 14 Jul 1979, <u>Dodson et al. 7984</u> (ECU, MO, RPSC, SEL). 1 Apr 1980, Dodson & Gentry 10111 (MO, QCA, SEL).

This plant keys to Inga setosa G. Don in the Flora of Peru if the rachis is taken as winged (on account of the winged petiole), but differs from that species in the pubescent acute-toothed calyx, and conspicuous inflorescence bracts, fewer larger leaflets, and consistently unwinged rachis proper among other characters. If the rachis is taken as unwinged (ignoring the petiole), it keys to I. stipulacea G. Don in the Flora of Peru. The Ecuadorian plant is probably most closely related to I. stipulacea, also of Amazonian Peru, but differs in the usually winged petiole, larger broader leaflets, pubescent corolla, lack of conspicuous calyx glands, and shorter blunter calyx teeth. While I have not seen type material of I. stipulacea, collected by Ruiz and Pavon at an unspecified locality in "Peru" and thus potentially from western Ecuador, its incomplete description matches the Amazonian material re-

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ferred here by Macbride (<u>I. rufiseta Benth., I. setigera</u> Poepp. & Endl., <u>I. chaetophora Harms</u>) better than the Ecuadorian material in having the leaflets "attenuated at the base" and the "tube of stamens much exserted". Moreover, I found a species of this complex to be common at Pozuzo, Peru (<u>Gentry et al. 40072</u>) in an area extensively collected by Ruiz and Pavon. This plant, which lacks the winged petiole and large leaflets of the Jauneche species, is no doubt the real <u>I. stipulacea</u>. Thus Macbride was evidently correct in referring the species of upper Amazonia to <u>I.</u> stipulacea; the wing-petioled Jauneche plant remains to be described.